

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Richland**

Site Summary Level: **Hanford Site**

Project **RL-WM03 / Solid Waste Storage and Disposal**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0395**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Purpose: Solid Waste Storage and Disposal Project provides centralized facilities for the interim storage of solid radioactive low-level mixed waste (LLMW) and transuranic (TRU) wastes and the disposal of solid radioactive LLMW and low-level waste (LLW) (excluding high-level and sanitary wastes) for onsite and offsite generators. This supports other Hanford projects (TWRS, Spent Nuclear Fuels, Liquid Effluents, Analytical Services and Environmental Restoration) and complex wide projects with the required services in support of their missions and end points. This includes the management, operations, surveillance, monitoring, and maintenance of facility buildings, burial grounds, and current waste inventories. Additionally this project provides inventory reductions through the final disposal of LLW and LLMW that meet Land Disposal Restrictions. The Solid Waste Storage and Disposal mission is to responsibly manage current and future solid waste streams in a safe, cost-effective and environmentally compliant manner.

Scope: This project includes operation, maintenance, technical support and management/administration of the Central Waste Complex (CWC), Low Level Burial Grounds (LLBG) and the cold standby until transition for reuse of the Non-Radioactive Dangerous Waste Storage Facility (NRDWSF or 616 Building). Additionally, Solid Waste Storage and Disposal manages the receipt, storage and/or disposal of newly generated wastes from onsite and offsite generators. The primary near term goals of this project are: (a.) Provide safe, compliant facility conditions in preparation of receipt of LLW, LLMW, and TRU wastes from onsite and offsite generators. (b.) Provide receipt, waste verification, and Toxic Substances Control Act (TSCA) and Resource Conservation and Recovery Act (RCRA) compliant storage of solid radioactive LLMW and TRU waste until treatment and disposal occurs. (c.) Provide receipt, waste verification, and disposal of solid radioactive LLW in the RCRA compliant burial grounds. (d.) Provide direct offsite shipment services for treatment and disposal of non-radioactive dangerous wastes. (e.) Provide storage, receipt, and disposal of treated solid radioactive LLMW in the Mixed Waste Disposal Trenches. (f.) Interface with project RL-WM04 (Solid Waste Treatment) for the treatment of solid radioactive LLMW and the treatment, repackaging, and certification of TRU wastes for shipment to the Waste Isolation Pilot Plant (WIPP). (g.) Provide design and construction of additional mixed waste disposal trenches. (h.) Interface with TWRS Privatization. (i.) Provides for the overall planning and integration support for all of the Waste Management Hanford function.

Specific project scope from the Hanford Site technical baseline is provided below in terms of the functions performed by the Solid Waste Storage and Disposal project.

Solid Waste Storage/Disposal Minimum Safe - - Operate and maintain the CWC, LLBG and the 616 Building in a safe, cost-effective and environmentally compliant manner. Operations and maintenance are defined as those operations, maintenance, engineering, surveillances, reporting and support activities required by DOE, State and Federal regulations and facility permits. Minimum safe facility operations allow for continued compliant storage of radioactive mixed and transuranic wastes, and the disposal of low level and mixed radioactive wastes.

Program Management Minimum Safe - - This activity provides for the overall planning and integration support for all of the Waste Management Hanford functions. This includes long range strategic planning and scheduling; business management, financial control, development and preparation of the Multi-Year Work Plan, the Project Baseline Summaries, activity based cost estimates, resource loaded schedules, change control, and monthly financial reporting; updates of technical baseline documents, procurement services, project administration, Hanford site security services, construction

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forces buildings, emergency preparedness enhanced drill programs and EM integration. This directly supports all of the Solid Waste, Liquid Effluent, and Analytical Services project activities and allows for the continued operations that support other Hanford projects.

Waste Management Steam Assessment - This assessment provides the steam for heating of this mission area including the Solid Waste, Liquid Effluents, and Analytical Services facilities.

Waste Management Laundry Assessment - This assessment provides the laundry services for this mission area including the Solid Waste, Liquid Effluents, and Analytical Services facilities.

Waste Management Fee Assessment - As a pay for performance contract, this provides the WMH mission areas allocation of PHMC payment to contractors for performance.

Solid Waste Storage/Disposal Essential Services - - This activity provides stabilization of the Low Level Burial Ground (LLBG) to resolve subsidence issues and contamination control activities in the LLBG to reduce contamination spread and environmental damage. It also provides capacity development for the continued disposal of radioactive low level and mixed wastes; and for the design and placement of closure covers on the mixed waste trenches. (Partially funded in FY 2000 and FY 2001.)

Waste Management Transportation and Packaging - - This activity provides services related to transportation and packaging. This includes Safety Analysis Reports for Packaging (SARPs) and other safety basis type documents; and Traffic Management Operations to ensure proper application of site regulatory requirements for on and off site shipments of hazardous materials and wastes, including radioactive and mixed wastes. It also provides Traffic Environmental services to ensure adequate performance of applicable regulations, and Hazmat Operation oversight to ensure proper application of regulations associated with on-site shipment of hazardous wastes, radioactive wastes and mixed wastes.

Solid Waste Facilities Life Extension/Upgrade - - Complete small projects and equipment upgrades to modify the Solid Waste Storage and Disposal facilities to improve their operation, extend their useful life, ensure regulatory compliance or correct deficiencies. (Unfunded in FY 2000 and FY 2001.)

Technical Approach: The Solid Waste Storage and Disposal Project supports many end point targets in the Hanford Strategic Plan including targets assigned to other projects. These cleanup activities could not occur, or would be significantly delayed at substantially greater cost without the support of this project.

- Protect public health and the environment
- Reduce or eliminate emissions and effluents
- Regulatory and TPA compliance
- Nuclear Materials and high-level waste will eventually be sent offsite. Onsite interim safe, stable storage will be required
- Complete final disposition of remaining unirradiated uranium inventories in the south 600 area facilities by disposition offsite or disposal as LLW in 200 Area.
- Low level and low level mixed waste from onsite and offsite sources (including PNNL special case wastes) will continue to be disposed of in the 200

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Area.

- Protect worker health and safety; reduce accidents and radiological exposure; achieve voluntary protection program "star" status.
- Complete final disposition of remaining unirradiated uranium inventories by disposition offsite or disposal as LLW in 200 Area.
- Contaminated media from soil sites in the south 600 area will be consolidated and moved to the 200 Area for disposal.
- Transition high cost surplus facilities in the central plateau and south 600 areas to a low cost, stable, deactivated condition.
- Spent fuels (TRIGA and light water reactor) and applicable FFTF fuels removed from 400 Area interim storage area to 200 Area.
- Retrievably stored TRU waste retrieved, processed, shipped offsite to WIPP.

The facilities owned and operated by the Solid Waste Storage and Disposal Project and the technical approach to accomplish its mission are described below.

· Technical Objective - Solid Waste Storage and Disposal: Solid Waste Storage and Disposal receives and accepts from offsite and onsite generators for interim storage and/or disposal wastes that meet the Hanford Site Solid Waste Acceptance Criteria. Solid Waste Storage and Disposal will strive to accelerate schedules, minimize costs, and support pollution prevention. Solid Waste Storage and Disposal utilizes real-time radiography (X-ray) and passive, active neutron assay technology for waste verification activities.

Central Waste Complex (CWC) - - The CWC provides RCRA compliant interim storage for Low Level (LLW), Low Level Mixed (LLMW) and transuranic (TRU) radioactive wastes. The CWC provides surveillance and monitoring of existing LLW, LLMW and TRU waste inventories. The CWC interfaces with project RL-WM-04 for retrieval of Post 1970 contact handled TRU, certification of TRU waste for shipment to WIPP and waste verification activities.

Low Level Burial Grounds (LLBG) - - The LLBG provides shallow land disposal for Low Level Waste. It also provides surveillance and monitoring of existing buried and retrievably stored waste inventories. The LLBG interfaces with project RL-WM-04 for retrieval of Post 1970 contact handled TRU, certification of TRU waste for shipment to WIPP, and waste verification activities.

Mixed Waste Disposal Trenches (MWT) - - The MWT provides shallow land disposal of radioactive Mixed Waste in the lined Mixed Waste Disposal Trenches. The MWT interfaces with project RL-WM05 and includes a leachate collection system and transports leachate to the Liquid Effluents Project. The MWT also interfaces with project RL-WM04 for disposal of treated mixed waste and waste verification activities.

Non-Radioactive Dangerous Waste Storage Facility (NRDWSF or 616 Building) - - The 616 Building is currently being maintained in a cold standby status until transition for subsequent reuse. The Solid Waste Storage and Disposal project does provide the direct offsite shipment services for non-radioactive dangerous wastes.

Project Status in FY 2006:

Solid Waste Storage/Disposal Minimum Safe - The CWC, LLBG and MWT continue to operate in support of Hanford and complex wide cleanup activities. The 616 Building has been transitioned to the Infrastructure Project (Landlord Program) for subsequent reuse or demolition.

Program Management Minimum Safe - Program management activities continue to support the operating facilities in the Solid Waste Storage and

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Disposal, Solid Waste Treatment, Liquid Effluents and Analytical Services Projects.

Waste Management Steam Assessment - This assessment continues to provide steam to the Solid Waste Storage and Disposal, Solid Waste Treatment, Liquid Effluents and Analytical Services Projects.

Waste Management Laundry Assessment - This assessment continues to provide laundry services to the Solid Waste Storage and Disposal, Solid Waste Treatment, Liquid Effluents and Analytical Services Projects.

Waste management Fee Assessment - This assessment continues to provide the WMH mission areas allocation of PHMC payment to contractors for performance.

Solid Waste Storage/Disposal Essential Services - Additional LLW and MLLW disposal capacity has been developed. The closure cover has been placed on the first filled MWT. Contamination control and stabilization activities continue in the LLBG.

Waste Management Transportation and Packaging - Transportation and packaging services continue to support waste movements to, from and around the Hanford Site.

Solid Waste Facilities Life Extension/Upgrade - Small projects and equipment upgrades have been completed and are planned to continue to improve the operation, extend the useful life, ensure regulatory compliance, or correct deficiencies at the CWC, LLBG and MWT facilities.

Post-2006 Project Scope:

Solid Waste Storage/Disposal Minimum Safe - CWC storage operations will continue until all presently stored and newly generated MLLW and TRU waste is disposed, then the facilities will be transitioned for subsequent D&D. It is assumed that life cycle operations will continue until approximately 2034. It is also assumed that all TRU waste with TBD disposition path will be stored at an alternate location. Low level mixed waste disposal operations in the MWT facilities will be closed and transitioned to Long Term Storage and Maintenance (S&M). LLBG disposal operations will continue until all presently stored and newly generated waste is disposed, then the facilities will be transitioned for subsequent D&D and the burial grounds closed. It is assumed that life cycle LLBG operations will continue until approximately 2046. Disposition of Greater than Waste Category 3 low level waste is pending decision for disposal path.

Program Management Minimum Safe - Program management activities continue to support the operating facilities in the Solid Waste Storage and Disposal, Solid Waste Treatment, Liquid Effluents and Analytical Services Projects until FY 2046.

Waste Management Steam Assessment - This assessment continues to provide steam to the Solid Waste Storage and Disposal, Solid Waste Treatment, Liquid Effluents and Analytical Services Projects until FY 2035.

Waste Management Laundry Assessment - This assessment continues to provide laundry services to the Solid Waste Storage and Disposal, Solid Waste Treatment, Liquid Effluents and Analytical Services Projects until FY 2046.

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Waste management Fee Assessment - This assessment continues to provide the WMH mission areas allocation of PHMC payment to contractors for performance until FY 2046.

Solid Waste Storage/Disposal Essential Services - Contamination control and stabilization activities continue in the LLBG until FY 2015. MWT closure covers are supported until FY 2035.

Waste Management Transportation and Packaging - Transportation and packaging services continue to support waste movements to, from and around the Hanford Site until FY 2046.

Solid Waste Facilities Life Extension/Upgrade - Small projects and equipment upgrades are planned to continue to improve the operation, extend the useful life, ensure regulatory compliance, or correct deficiencies at the CWC, LLBG and MWT facilities until FY 2035.

Project End State

The CWC will be clean closed and turned over to the Infrastructure Project (Landlord Program) for redeployment or demolition. The MWT will have closure covers in place and will be transferred to the Environmental Restoration Project for decontamination and decommissioning or long-term S&M. The LLBG will be stabilized and transferred to the Environmental Restoration Project for continued operations, then decontamination and decommissioning or long-term S&M.

Specific work activities to close the facilities under this Project to be performed by others at the end of this Project's mission are identified below.

Central Waste Complex:

Work associated with facility performed by Decontamination & Decommissioning: Decontaminate and Decommission (D&D) Central Waste Complex Facility

Nonradioactive Dangerous Waste Storage Facility:

Work associated with facility performed by Decontamination & Decommissioning: Decontaminate and Decommission (D&D) Non-Radioactive Dangerous Waste Storage Facility

Low Level Waste Burial Grounds:

Work associated with facility performed by 200 Area Source Remedial Action Project: Decontaminate and Decommission (D&D) Low Level Burial Grounds Facility

Mixed Waste Disposal Trenches:

Work associated with facility performed by 200 Area Source Remedial Action Project: Decontaminate and Decommission (D&D) Mixed Waste Disposal Trenches

Cost Baseline Comments:

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Safety & Health Hazards:

The project is currently in the operations phase for storage and disposal of LLW, LLMW, TRU, and hazardous wastes which contains the S&H functions necessary to maintain safe, compliant and operable Solid Waste facilities in compliance with the authorization basis, surveillances, and maintenance and calibration of safety systems. The principle hazards in the Solid Wastes facilities are stored quantities of LLW, LLMW, TRU, and RINM; retrievably stored TRU, quantities of hazardous chemicals, subsidence potential in the LLBG, buried LLW, LLMW, and TRIGA fuel (managed as TRU); and aging equipment and infrastructure. The stored and buried wastes pose a radiological hazard to workers, a potential of contamination spread to the environment, and chemicals could result in potential chemical contamination. In addition, there are safety concerns associated with the aging equipment and facility structures. As the project progresses, workers may encounter electrical hazards due to normal age related deterioration of these facilities. In addition, workers can be expected to encounter normal occupational hazards, e.g., lifting, tripping, crane and rigging, or falls, in each facility within this cluster. These hazards will persist throughout the operations and deactivation phases. In the decommissioning and closure of portions of the project, the principle hazards will involve normal occupational safety hazards related to building deconstruction, soil remediation, and burial closure cover installation.

Project Stopped Risks

If this project were stopped, solid waste storage and disposal services would not be available to support the requirements of a wide range of Hanford and DOE complex wide projects. Virtually all supported programs generating waste will be in RCRA non-compliance, therefore all cleanup progress will be impacted. As a result, the hazards and activities managed by many Hanford projects would pose greater public, worker, and environmental risks.

Assuming that storage and disposal at Solid Waste facilities is not supported, the primary risks are found at the generator facilities as generated waste inventories stockpile. It is assumed that increasing inventories at the generator facilities over time result in increased worker exposures and increased potential for inadvertent releases to the environment. Failure to continue surveillance and monitoring of current waste inventories at Solid Waste facilities are assumed over time to result in containment breaches and subsequent release to the environment.

Without compliant storage and disposal facilities and the resultant lack of proper storage and management at generator facilities, it is assumed the presently emplaced radioactive mixed and transuranic wastes have a high probability of inadvertent release to uncontrolled areas and subsequently travel offsite within 1 - 10 years. Future generated radioactive mixed and transuranic wastes would accumulate at the site of generation resulting in the potential for multiple sites of release to uncontrolled areas. Unacceptable safety risks to the public result. Quantities of undisposed radioactive wastes will increase during routine operations because of the lack of a compliant disposal facility. Cleanup activities will be congested and as a result contaminated and/or hazardous materials may be inadvertently released to uncontrolled areas and subsequently travel offsite and exceed established limits. This results in a significant overexposure to a member of the public and is assumed to occur within 10-100 years (based upon best engineering judgement). This corresponds to a public health risk of 2C-M.

Baseline worker health & safety risks: Unmanaged or uncontained contamination poses a major threat to site staff safety and health. Virtually all Hanford Programs and many offsite generators will have significant impacts to mission, or create a large inventory, or unmanaged radioactive waste will lead to unacceptable exposures to site workers. There are increased risks of deterioration of facilities containing legacy wastes that could expose

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staff to high levels of contamination primarily from stockpiles of remote handled radioactive wastes. As the current containers deteriorate, the condition would escalate leading to increasing and expanding exposures. Both short and long term ES&H risks of staff to contaminated and/or hazardous materials would result. Best engineering judgement assumes that this results in significant exposures to site workers within 10-100 years. This corresponds to a worker health risk of 2C-M.

Baseline environmental health risks: There would be a greatly increased potential for contamination spread to the environment. High level contamination spread of low level, transuranic, and hazardous wastes due to unmanaged wastes at generator facilities and in the 200 Areas would cause severe environmental damage over time that would not be easily containable (based upon best engineering judgement). Based on engineering judgement, this is expected to occur within 10 years with moderate damage to small geographic locations. Significant environmental damage could eventually occur and is assumed to result within 10-100 years. This corresponds to a environmental health risk of 2C-M.

Project Implemented Risks

During the implementation of the Solid Waste Storage and Disposal Project, a different set of risks are posed. Operation and maintenance of storage and disposal pose risks from potential exposures to hazardous and low-level radioactive materials (less than 10mR/hr) and from common industrial hazards.

Risks to the general public would be relatively low because there are no credible scenarios to release substantial quantities of radioactive or hazardous materials. Best engineering judgement assumes that the probability is very low with an occurrence at greater than 100 years. Public health risk is estimated to be 3D-Low.

For worker risk, the risk drivers are radiological overexposure or industrial accident or injuries with a limited period of disability (<3 months). Due to operational procedures and ALARA programs, the probability for radiological overexposure is very small (≤ 0.01). The primary risk driver is from industrial injury such as back strains with temporary limited periods of disability. The time until such an event is estimated (based on past operating experience) at greater than or equal to one year with a probability of less than one. This corresponds to a worker risk of 3B-Medium. By FY 2031, essentially all inventories of stored low level, low level mixed, and transuranic wastes have been treated and disposed; and the volume of newly generated wastes for disposal are significantly smaller. Engineering judgement assumes that the probability of such an event would decrease to about one incident in greater than ten years. This corresponds to a worker risk of 3C-Low.

The driver for environmental risk during operations is a localized radioactive material spill to the ground or contamination migration by natural vegetation that would produce only moderate environmental damage over a small area. Such an event is estimated (based on best engineering judgement) to have an annual probability of between >0.1 and <1 per year. This corresponds to an environmental risk of 3B-Medium. By FY2021, the volumes of wastes that are handled are significantly reduced resulting in a reduced probability of occurrence (10-100 years) and an environmental risk of 3C-L.

At the end of the EM-30 clean-up mission in FY2046, this project would be transferred to another function for continued operations and maintenance until subsequent closure, decontamination, and decommissioning (D&D). Additional risk reductions occur after D&D is complete, but this occurs outside of the duration and scope of this project.

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Safety & Health Work Performance:

The resources necessary to accomplish the work safely are provided through the Authorization Bases, the site Health and Safety Program requirements, and through the resources allocated to the site's integrated safety management system in the following functional categories: radiological safety, criticality safety, emergency management, fire safety, industrial hygiene, nuclear safety, occupational medicine, occupational safety, safeguards and security, safety integration, performance oversight, and standards management. S&H resources are planned and allocated into these categories by cost centers through the work breakdown structure and resource loaded into the project for each fiscal year. The average cost per FTE assumed (burdened rate) is \$95K/year for RCTs, \$106K/year for Rad Engineers, \$119K/year for Fire Protection Engineers, \$99K/year for Industrial Hygienists, \$149K for managers and \$119K/year for Safety Engineers. Since the activities within this project are currently in operation, no restart reviews are currently anticipated with the exception of a readiness checklist for startup of disposal operations within the Mixed Waste Disposal Trenches (currently under storage operations). The S&H resources necessary to accomplish the Waste Management Hanord operations functions include: fire protection personnel to conduct fire system safety checks, safeguard and accountability reviews of emergency procedures, periodic industrial hygiene surveys, and radiological control technicians to conduct daily radiological monitoring and release of workforce from facility areas. In addition, resources are provided to implement an ongoing enhanced emergency preparedness drill program. No appreciable change in S&H resource requirements is anticipated for these operations activities until completion of waste storage and disposal functions in support of Hanford site and complex cleanup missions. Support of these missions continues throughout the life cycle of the EM cleanup mission. Upon deactivation and transition to decommissioning, the S&H resources will shift to industrial hazard safety assessment and industrial hygiene activities related to construction and occupational safety hazards, radiological survey of removed material treated as low level waste, and compliance management activities within Transition Projects and D&D projects. There are unfunded S&H FTEs in FY 2001 supporting the unfunded TRU Retrieval, 222-S FSAR, and the Evaporator FSAR activities.

Safety & Health support is

provided to operations, radiological control, environmental monitoring and sampling, safety, permitting, procedures, assessments, and training. Operations support includes work package reviews, required training, and emergency preparedness drill activities. Radiological control includes job coverage for maintenance, routine surveys, radiological surveillance programs, documentation, responses to radiological alarms and "off-normal" conditions, and emergency response actions. Environmental monitoring and sampling is conducted to ensure that the requirements of facility operating permits are met. Safety support is provided in the areas of Fire Safety, Industrial Hygiene, Industrial Safety, Nuclear Safety, Transportation & Safety, Emergency Preparedness, and Radiation Protection.

Technical support is provided to maintain and/or update authorization bases and safety documentation. Permitting support includes preparation of submittals required by facility operating permits and required reporting for the Emergency Planning and Community Right-to-Know Act (EPCRA). A waste management program is maintained for the control and shipment of low-level, mixed, and hazardous wastes. Emergency procedures are prepared, maintained, and coordinated. Assessments are performed of facility and staff readiness, and drills are conducted. Training is conducted to meet facility requirements.

For S&H categories in

sections D.2.2 and D.2.5, fire protection, industrial hygiene, occupational medicine, and transportation and packaging, funding is provided within this project through organizational overhead, the site G&A, and certain cost elements to support performance of this work by other site contractors. The S&H professionals (FTEs) should be identified within the projects of those other site contractors.

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Current in place S&H programs and continuing improvement emphasis is expected to maintain a safe working envelope.

PBS Comments:

This section includes key information relative to the project that is not covered in other narratives.

The target level funding reflected in section B.1 is different than the baseline budget contained in this PBS, and reflects reductions in scope that would be taken from this project if needed enhanced performance targets are not realized for the site to meet the overall anticipated funding level. Specific impacts in FY 1999 and their consequence would be:

Not fully funding implementation of the required Integrated Safety Management Plan and not funding a Chemical Safety Analysis tracking program will delay implementation and could potentially increase the risk to worker safety and contamination spread. Due to safety being a high priority on the Hanford Site, these programs have been developed for implementation by the PHMC contractors.

WM ES&H Initiatives \$850K

Baseline Validation Narrative:

During September 1998, the DOE conducted an exhaustive review of the project baseline. The purpose of the review was to ensure that Activity Based Cost Estimating methodologies were utilized, the planning bases were sound, and the results were adequately documented. Comprehensive interviews were also conducted with key members of the project team. Relatively minor changes have been included in routine baseline changes.

TECHNICAL APPROACH REFERENCE DOCUMENTS

- Waste Management Project Fiscal Year 1999 Multi-Year Work Plan WBS 1.2, HNF-SP-1229 Rev. 2
- Hanford Site Technical Database (HSTD)

General PBS Information

Project Validated? Yes **Date Validated:** 9/29/1998

Has Headquarters reviewed and approved project? Yes

Date Project was Added: 12/1/1997

Baseline Submission Date:

FEDPLAN Project? Yes

Drivers:	CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
		Y	Y	Y		Y	Y	Y

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Project Identification Information

DOE Project Manager: H.E. Bilson
 DOE Project Manager Phone Number: 509-376-1366
 DOE Project Manager Fax Number: 509-372-1926
 DOE Project Manager e-mail address: helen_e_beth_bilson@rl.gov
 Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006	
PBS Baseline (current year dollars)	410,016	1,883,814	2,293,830	30,970	27,753	35,971	29,043	37,158	40,530	39,868	43,205	46,960	47,832	44,055	43,467	
PBS Baseline (constant 1999 dollars)	384,608	1,094,198	1,478,806	30,970	27,753	35,971	29,043	37,158	39,696	38,207	40,514	43,087	42,943	38,700	37,362	
PBS EM Baseline (current year dollars)	410,016	1,883,814	2,293,830	30,970	27,753	35,971	29,043	37,158	40,530	39,868	43,205	46,960	47,832	44,055	43,467	
PBS EM Baseline (constant 1999 dollars)	384,608	1,094,198	1,478,806	30,970	27,753	35,971	29,043	37,158	39,696	38,207	40,514	43,087	42,943	38,700	37,362	
	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	44,261	45,073	45,902	46,751	248,702	251,684	276,389	303,935	273,877	149,969	162,983	34,288				
PBS Baseline (constant 1999 dollars)	37,225	37,092	36,961	36,835	183,653	166,694	164,183	161,932	130,874	64,276	62,652	11,821				

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	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS EM Baseline (current year dollars)	44,261	45,073	45,902	46,751	248,702	251,684	276,389	303,935	273,877	149,969	162,983	34,288				
PBS EM Baseline (constant 1999 dollars)	37,225	37,092	36,961	36,835	183,653	166,694	164,183	161,932	130,874	64,276	62,652	11,821				

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.00%	0.00%	0.00%	2.10%	2.20%	2.20%	2.20%	2.20%	2.20%	2.20%	2.20%	2.20%	2.20%
2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.20%	2.20%	2.20%	2.20%	2.20%	2.20%	2.20%	2.20%	2.20%				

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 9/30/2046

Current Projected End Date of Project: 9/30/2046

Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	1,069,126	Actual 1997 Cost:	27,753	Actual 1998 Cost:	29,043
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	1,012,330	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):			27,333
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	1,039,663				

Project Cost Changes

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Project Baseline Summary Report

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Operations/Field Office: Richland

Site Summary Level: Hanford Site

Project RL-WM03 / Solid Waste Storage and Disposal

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Project Reconciliation

Cost Adjustments Reconciliation Narratives

Cost Change Due to Scope Deletions (-):

Cost Reductions Due to Efficiencies (-):

Cost Associated with New Scope (+):

Cost Growth Associated with Scope Previously Reported (+):

Cost Reductions Due to Science & Technology Efficiencies (-):

Subtotal: 1,039,663

Additional Amount to Reconcile (+): 372,202

Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): 1,411,865

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
INITIATE DISPOSAL OF CH-LLWM	A1C-01-001	6/30/2001	6/30/2001	6/30/2001			Y				
Begin Solid Waste Storage and Disposal Project	PBS-97-010		2/28/1997								
PBS Mission Completion	PBS-MC-010		9/30/2046								
PBS Project End	PBS-PE-010		9/30/2046								

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
INITIATE DISPOSAL OF CH-LLWM	A1C-01-001										Initiate disposal of CH LLMW.
Begin Solid Waste Storage and Disposal Project	PBS-97-010			Y							Administrative input to document the start of this PBS.
PBS Mission Completion	PBS-MC-010					Y					Administrative input to document the mission completion of this PBS.

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Operations/Field Office: Richland

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Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
PBS Project End	PBS-PE-010				Y						Administrative input to document the project end of this PBS.

Performance Measure Metrics

Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planned 2004
Fac.														
Deact. During Per.	NF	0.00	0.00	0.00										
TRU														
Storage	M3							16,312.80	16,106.09	15,974.75	15,436.40	15,254.74	15,109.08	14,638.7
MLLW														
Storage	M3							9,170.60	4,456.76	7,670.64	7,399.86	7,261.45	6,752.68	6,364.3
MLLW														
On-Site Disp.	M3	17,977.06	68,785.48	86,762.54	0.00		0.00			2,525.00	2,808.86	1,985.24	1,847.18	2,351.7
LLW														
Storage	M3							180.00	180.00	180.00	180.00	180.00	180.00	180.0
LLW														
On-Site Disp.	M3	55,039.55	193,163.01	248,202.56	0.00		0.00	5,919.00	6,111.52	3,873.53	5,094.62	7,116.56	7,163.66	6,976.8
Haz.														
Commercial	MT	0.00	0.00	0.00	0.00		0.00							
Haz.														
DOE On-Site	MT	0.00	0.00	0.00	0.00		0.00							

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Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Richland**

Site Summary Level: **Hanford Site**

Project **RL-WM03 / Solid Waste Storage and Disposal**

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Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035
Fac.													
Deact. During Per.	NF												
TRU													
Storage	M3	14,638.71	14,377.02	13,471.53	12,566.04	11,660.55	10,744.62	9,828.65	5,476.60	3,917.84	2,359.08	724.94	0.02
MLLW													
Storage	M3	6,364.37	5,759.92	5,071.91	4,153.84	3,199.43	2,349.54	1,410.20	164.04				
MLLW													
On-Site Disp.	M3	2,351.77	3,095.30	3,363.72	3,665.93	4,323.11	4,882.03	5,190.39	25,173.17	14,624.69	6,486.26	3,628.09	647.06
LLW													
Storage	M3	180.00	180.00	180.00	180.00								
LLW													
On-Site Disp.	M3	6,976.86	6,192.69	6,591.11	5,776.60	6,885.64	6,646.81	5,845.27	54,651.71	56,178.17	29,854.64	15,602.38	5,439.13
Haz.													
Commercial	MT												
Haz.													
DOE On-Site	MT												
Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total			
Fac.													
Deact. During Per.	NF								2.00	2.00			
TRU													
Storage	M3								0.05				
MLLW													
Storage	M3												

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Category/Subcategory			Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total				
MLLW																
On-Site Disp.			M3	74.89	74.89	14.97						86,944.54				
LLW																
Storage			M3													
LLW																
On-Site Disp.			M3	2,849.87	2,850.13	582.66						248,172.04				
Haz.																
Commercial			MT									96.00				
Haz.																
DOE On-Site			MT									186.00				
Release Sites																
Site Code	RSF ID	Change Flag	Description	Class/Subclass Name			Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
HASI	8334	R	200-E-20, 218-E-10 Borrow Pit	/												
HASI	8335	R	200-E-8, 200 East Trench 94 Diesel Spill	/												
HASI	8336	R	218-E-10, 200 East Industrial Waste No. 10, Equipment Burial Ground #10	/												
HASI	8337	R	218-E-12B, 200 East Dry Waste No. 12B, 218-E-12B Burial Ground - Trench 94	/												
HASI	8338	R	218-W-3A, Dry Waste No. 003A	/												
HASI	8339	R	218-W-3AE, Industrial Waste No. 3AE, Dry Waste No. 3AE	/												
HASI	8340	R	218-W-4B, Dry Waste No. 04B	/												
HASI	8341	R	218-W-4C, Dry Waste No. 004C	/												
HASI	8342	R	218-W-5, Dry Waste Burial Ground, Low-	/												

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Date of Dataset: **9/20/1999**

Project Baseline Summary Report

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Site Summary Level: **Hanford Site**

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Release Sites

Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
			Level Radioactive Mixed Waste Burial Grounds											
HASI	8343	R	218-W-6	/										
HASI	8344	R	616, 616 Building Non-Radioactive Dangerous Waste Storage Facility, 616 Nonradioactive Dangerous Waste Storage	/										
HASI	8345	R	616-WS-1, 616 NDWSF French Drain	/										
HASI	8346	R	6607-5	/										
HASI	8347	R	RMWSF, Radioactive Mixed Waste Storage Facility, 2401W, 2401WB, -WC, -WD, -WE, -WF, -WG, -WH, -WI, -WJ, -WK, -WL, Hanford Central Waste Complex	/										
HASI	8348	R	UPR-200-E-61, Radioactive Contamination from Railroad Burial Cars, UN-216-E-61, UN-200-E-61	/										

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